REMARKS

Applicant acknowledges receipt of the final Office Action mailed July 31, 2006. In response, Applicant submits this Amendment After Final. Claims 1-4 and 6-22 are pending. Claim 5 was canceled in a previously submitted response. Claims 1, 6-9, 15 and 16 are currently amended. New claims 17-22 are added for examination on the merits.

A check covering the requisite extra claims fee is enclosed herewith. Applicant believes that no additional fees are necessary for the proper entry and consideration of this Amendment. Nevertheless, if the Office deems otherwise, Applicant hereby authorizes the Director to charge any costs thereof to Deposit Account No. 13-2855.

In light of the foregoing amendments to the claims and the following remarks, Applicant believes that the present application is in condition for allowance and respectfully request the Examiner to acknowledge the same.

Rejections Under 35 U.S.C. §103

Claims 1, 3, 4, 6-10, 13, 15 and 16 stand rejected as allegedly being unpatentable over Bartels & Rieger (DE 3512644A1) in view of Huber (U.S. Patent No. 5,018,518) and Wilcox or Mucha (DE 19503027). Claims 2, 11, 12 and 14 stand rejected as allegedly being unpatentable over Bartels & Rieger (DE 3512644A1) in view of Hubner (U.S. Patent No. 5,018,518) and Wilcox or Mucha (DE 19503027) and further in view of O'Connor (U.S. Patent No. 4,950,951).

Initially, independent claims 1 and 9 have been amended herein to more particularly point out and distinctly recite the subject matter which Applicant regards as the invention. In light of these amendments, Applicant respectfully submist that neither Bartels & Rieger, Hubner, Wilcox, Mucha, O'Connor, nor any other reference of record teaches, suggests, or discloses, alone or in combination, each and every element of the claims.

Generally, amended claim 1 recites a breathing apparatus comprising a valve assembly operatively associated with a filter system and a tank. The valve assembly is adapted to control the flow of cleaned air from the filter system in a filtered mode and pressurized air from the tank in a clean air mode. The pressurized air supplied from the tank actuates the valve assembly from the filtered mode to the clean air mode.

Similarly, amended claim 9 recites a breathing apparatus comprising a valve assembly operatively associated with a filter system and a tank. Pressurized air supplied from the tank engages the valve assembly to move the valve assembly from a filtered air position to a clean air position. In the filtered position, the filter system delivers filtered air to the user. In the clean air position, the tank delivers pressurized air to the user.

Applicant submits that none of the prior art references teach such an apparatus as claimed in either claim 1 or 9 of the present application. Specifically, the apparatuses claimed in claims 1 and 9 of the present application provide a system that continuously supplies filtered air, clean air, or both to the user, thereby wholly eliminating any dead-time in the switching process from filtered air to clean air. More specifically, as claimed, the clean pressurized air introduced by the tank actuates the valve assembly from the filtered mode to the clean air mode. Thus, by definition, clean air must be present for inhalation by the user prior to the filtered mode being closed.

For example, with reference to FIGS. 3 and 6 of the present application, the filtered mode of operation includes filtered air being supplied to the face mask 10. During this filtered air mode, valve 36, which is operably coupled to the blower motor assembly 15, is open and valve 34, which is operably coupled to the tank 22, is closed. However, upon the user or a sensor device detecting dangerous atmospheric conditions, the regulator 12 is adjusted to allow pressurized air from the tank 22 to force open the valve 34. According to the one example of a valve assembly disclosed in the application, the pressurized air then travels through valve 34 and into the plenum 21 (FIG. 3) or the face mask 10 (FIG. 6) to force the valve 36 closed. This is in the last paragraph of page 8 through page 9 of the originally filed specification.

Accordingly, fresh air delivered from the tank 22 is present in the face mask 10 for the user to breath prior to the valve 36 closing the supply of filtered air. This provides a continuous supply of air to the user without any dead-time while switching from the filtered air mode to the pressurized air mode. Another benefit of this configuration is that upon the tank 22 emptying, the pressure applied to the valve 36 by the pressurized air in the tank 22 will decrease and the valve 36 will open. This allows filtered air to pass into the face mask 10. Accordingly, if a user of the breathing apparatus is unconscious for example, the valve

assembly 34, 36 will return to the filtered air mode when the pressure supplied by the tank 22 and applied to the valve 36 falls below a given threshold. This provides yet another dimension of safety to the user.

To the contrary, each of the references presently of record, discloses systems wherein there is an interruption in the flow of breathable air to the user when switching from filtered air to pressurized air, or vise versa. For example, Bartels & Rieger discloses a respiratory apparatus comprising a compressed air container 11, a breathing filter 21, and a valve 19. The valve 19 is switchable by a handle 191 to connect the hose line to either the air container 11 or the breathing filter 21. The actuation of the valve 19 is wholly dependent on operation of the handle 191. Nowhere does Bartels & Rieger disclose, or even suggest, that actuation of the valve 19 from the filtered mode to the compressed air mode may be effectuated by the pressurized air from the compressed air container 11, as is generally recited in claims 1 and 9 of the present application.

Additionally, Wilcox fails to disclose such features. Wilcox discloses "a dual purpose Self Contained Breathing System that will deliver blower assisted filtered air or closed circuit breathing gas." Wilcox Scout brochure, column 1. The system comprises a "control module" with an on/off switch, which allows the operator to switch breathing modes from filtered air to compressed air. Wilcox further mentions that the switching mechanism can also be controlled manually during a loss in tank pressure. *See* Wilcox Scout brochure, column 2. Thus, Applicant submits that Wilconx merely adds a "control module" component to that which is disclosed in Bartels & Rieger. Specifically, the control module component enables the system to switch without requiring manual operation of a handle by the operator. However, Wilcox provides no further explanation of the switching process. Therefore, Wilcox clearly fails to disclose a switching process wherein a valve assembly is actuated from the filtered mode to the compressed air mode by the actual pressure of the compressed air, as is generally recited in claims 1 and 9 of the present application.

Furthermore, Applicant submits that Mucha fails to disclose actuation of a valve assembly by the pressurized air supplied from a compressed air source. To the contrary, similar to Wilcox, Mucha merely improves upon the system disclosed in Bartels & Rieger by providing a controller 12, 120 coupled with one or more sensors 10, 11, 100. In response to

signals received from the sensor(s), the controller 12, 120 actuates a valve 4, 40. As depicted in FIGS. 2, 3, 5 and 6, however, the valve 40 merely comprises a piston or a cylinder valve member adapted to be moved into various relationships relative to various conduits for directing the flow of fluid through the system. However, Mucha only describes that the controller 12, 120 effectuates such movement. Mucha fails to provide any suggestion that the movement of the pistons and/or the cylinders may be actuated by pressurized air supplied form the air cylinder 9, as is generally recited in claims 1 and 9 of the present application. Moreover, an inspection of the pistons and cylinders depicted in FIGS 2, 3, 5 and 6 of Mucha clearly shows that when switching from filtered air to compressed air dead-time occurs, wherein the operator will not be supplied with any breathable air. This is directly contrary to the function of the present application. For example, while the cylinder 25 of FIG. 3 is rotated clockwise from the conduit 5 to the conduit 6, a dead-time will occur as the flow path 26 is positioned between the conduits 5 and 6. During this period, the system fails to deliver breathable air to the user.

Finally, Applicant submits that Hubner fails to disclose a valve assembly which may be actuated from a filtered air mode and a compressed air mode, as is generally recited in claims 1 and 9 of the present application. Rather, Hubner merely discloses a filtered assembly and fails to couple that filtered assembly with a compressed air assembly. Accordingly, Hubner cannot possibly disclose such a valve assembly.

Therefore, based on the amendments to the claims and the foregoing remarks, Applicant respectfully asserts that independent claims 1 and 9 are in condition for allowance. Furthermore, claims 2-4, 6-8 and 10-16 are in condition for allowance as being dependent on allowable base claims.

New Claims

New claims 17-22 have been added herein. Applicants submit that claims 17-22 are dependent on allowable claims 1 or 9, as established above, and therefore are also in condition for allowance.

Conclusion

In view of the foregoing, Applicant submits that each of the outstanding objections, rejections, and/or other concerns have been either accommodated, traversed, or rendered moot, thereby placing the present application in condition for allowance. If there are any outstanding issues that the Examiner believes may be remedied via telephone conference, Applicant invites the Examiner to telephone the undersigned at (312) 474-6300.

Dated: October 16, 2006

Respectfully submitted,

By _____

Michael P. Furmanek
Registration No.: 58,495
MARSHALL, GERSTEIN & BORUN LLP
233 S. Wacker Drive, Suite 6300
Sears Tower
Chicago, Illinois 60606-6357
(312) 474-6300
Attorney for Applicant